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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/989,373	12/12/1997	ARTURO J. GARCIA	TRD-009-PA	8757
29673	7590	04/07/2004	EXAMINER	
STEVENS & SHOWALTER LLP 7019 CORPORATE WAY DAYTON, OH 45459-4238			LEE, PING	
		ART UNIT		PAPER NUMBER
		2644		
DATE MAILED: 04/07/2004				

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	08/989,373	GARCIA ET AL.	
	Examiner Ping Lee	Art Unit 2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 09 January 2004.

2a) This action is FINAL.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-47 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-6,12-14,18-27,31 and 33-43 is/are rejected.

7) Claim(s) 7-11,15-17,28-30,32,44-47 is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_

5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_

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### **DETAILED ACTION**

1. In view of the preliminary amendment filed on 6/20/00, the previous final rejection, Paper #20, has been vacated.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 4, 12-14, 18-27, 31 and 33-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Garcia (US 5,361,306).

Regarding claims 1, 4, 12-14, 18-27, 31 and 33-43, Garcia shows an apparatus for enhancing the quality of an input audio signal comprising an audio source (col. 3, lines 38-39), a passive circuit (54, 109) which distorts the input signal, when transmitted therethrough, into an enhanced audio signal by distorting audible frequency components of the input audio signal such that the audible frequency component increase in amplitude as they increase in frequency from a first intermediate frequency up to a high frequency (col. 4, lines 17-25).

Regarding claim 29, the claimed audio source reads on the signal at the input of the passive circuit 54.

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***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 2, 3, 5 and 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Garcia.

Regarding claims 2 and 5, Garcia fails to explicitly show the high frequency is in the range of from about 6 kHz to about 30kHz. It was well known in the art that an audio system generally reproduced sound signal from 20 Hz to 20 kHz. Garcia also shows a typical audio system (col. 5, lines 5-6). Thus, it would have been obvious to one of ordinary skill in the art to modify Garcia's system by utilizing the harmonic enhancement method as taught in Garcia for a general audio system with reproduction range from 20 Hz to 20 kHz in order to improve the listening experience.

Regarding claims 3 and 6, Garcia fails to explicitly show the amplitude of the high frequency or the low frequency with respect to the intermediate frequency. It was well known in the art that the winding of the transformer, the gap between the windings and/or material of the core would affect the amplification of the passive circuit. Thus, depending on the criteria determined by the engineer, it would have been obvious to one of ordinary skill in the art to modify Garcia depending on the selected winding, the gap and/or the material of the core of the passive circuit.

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***Response to Arguments***

6. Applicant's arguments filed 1/9/04 have been fully considered but they are not persuasive.

Applicant argued that Garcia fails to show that elements 54 and 109 can produce an enhanced audio signal from an input signal.

The claimed passive circuit reads on elements 54 and 109 of Garcia. This passive circuit comprises only passive elements (see Fig. 3) and it will provide enhanced audio signal. On col. 3, lines 3-6, Garcia shows how the weak coupling generates the harmonics to the input signal. The output from this weak coupling is a signal with added harmonics, therefore, the output signal is an enhanced audio signal. Whether or not Garcia requires an amplifier is irrelevant because Garcia shows that the audible sound reproduced from the enhanced audio signal exhibits a perceptively improved harmonic quality. Furthermore, applicant's claimed invention as specified in claim 13 requires an amplifier.

***Allowable Subject Matter***

7. Claims 7-11, 15-17, 28-30, 32 and 44-47 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

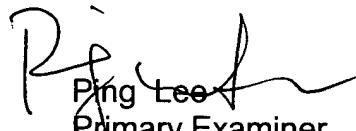
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ping Lee whose telephone number is 703-305-4865. The examiner can normally be reached on Monday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W Isen can be reached on 703-305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Ping Lee  
Primary Examiner  
Art Unit 2644

pwl